RECEIVED
CENTRAL FAX CENTER
JUN 22 2007

M. ROBERT KESTENBAUM, LLC
PATENT AND TRADEMARK MATTERS

FACSIMILE TRANSMITTAL SHEET

TO: Examiner Clark Dexter	FROM: M. Robert Kestenbaum
COMPANY: Commissioner for Patents	DATE: 6/22/2007
FAX NUMBER: (571) 273 8300	TOTAL NO. OF PAGES INCLUDING COVER: 21
PHONE NUMBER: 571-272-4505	SENDER'S REFERENCE NUMBER: (MM) 53 928
RE: Response to Misc. Action of 8/10/2006	YOUR REFERENCE NUMBER: 09/551,252

NOTES/COMMENTS:
Dear Examiner Dexter:

I am faxing a response to the Final Office Action mailed 02/21/2007.

We believe this submission fully overcomes your objections and explains how the ejector operates and cooperates with the cutter, and how it ejects a workpiece. We respectfully believe that this submission fully responds to your questions. We also include a Replacement Sheet for Figure 1. This submission includes a PTO 2038 authorizing charging a credit card for the prescribed $225 small entity two month extension.

Thank you in advance for considering this submission.

We look forward to the opportunity to discuss this submission with you at your earliest possible convenience.

Sincerely,

M. Robert Kestenbaum
Reg. No. 20,430

11011 BERMUDA DUNES NE
ALBUQUERQUE, NEW MEXICO USA 87111
PHONE (505) 323-0771
FAX (505) 323-0865

Response Under 37 CFR 1.116
Expedited Procedure
Examining Group 3724

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re:	US Patent Application	09/551,252
	Filed	April 18, 2000
	Applicant	Brodbeck
	Art Unit	3724
	Examiner	Clark F. Dexter
	Telephone	571-272-5414
	Attorney Docket	(MM) 53 928

Mail Stop – AF with Fee
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Amendment After Final Action

Dear Examiner Dexter:

This responds to the final Office Action mailed 02/21/2007.

Replacement paragraphs for paragraphs [0002], [0014], [0015], [0018], [0019], [0020], [0022], [0025], [0026], [0027], [0028], [0031], [0032], and [0035] are included herewith, with markings to show the minor changes, most of which were suggested by the Examiner. No new matter is added. A marked-up specification is not provided, as the changes are minor. The replacement paragraphs are set forth on the following pages.

[0002] Cardboard tube cutting machines are already known[[,]] in which a cutting tool is provided which is stationary relative to the counter-holder. The cardboard tube, which is mounted on a counter-holder, is moved relative to the cutting tool by means of an ejector, the advance path relative to the cutting tool determining the tube length of a cut-off sleeve. These machines require a considerable constructional space, since their length requires at least twice the tube length of the cardboard tube to be processed.

[0014] Fig. 2 shows an end view of the apparatus, from the ~~right~~ left according to Fig. 1, and

[0015] Fig. 3 shows an end view of the apparatus, from the ~~left~~ right according to Fig. 1.

[0018] The guide rail 16 ~~has~~ includes a housing in which a threaded spindle 26 is rotatably mounted. The slide 17 has a corresponding guide element (not shown) which engages the threaded spindle 26. A servomotor or stepping motor 27 is provided at a drive-side end of the threaded spindle 26, and engages the threaded spindle 26 via a coupling 28.

[0019] The stepping motor 27 is selected such that, for example, a 1:1 transmission can take place from the drive shaft (not shown) of the motor 27 to the threaded spindle 26, so that precise driving of the slide 17 and thus an exact travel path with respect to the cutting tool 19 can be attained.

[0020] It can alternatively be provided that a gear is arranged between [[a]] the threaded spindle and [[a]] the motor 27. It can furthermore be alternatively

provided that the slide 17 is driven to travel along the guide rail 16 by means of a toothed belt, a chain, or the like.

[0022] In Fig. 1, a unit 30 is provided on slide 17, and has a non-rotatingly driven cutting tool 19. A unit 35 is furthermore shown which has ~~a motor driven~~ the cutting tool 19, which is driven by the motor 37.

[0025] Furthermore, the unit 35 can alternatively be provided, the cutting ~~knife~~ tool 33, in the form of a cutting knife 33 being driven by a motor 37. One or more units 30 or 35, which can also be provided in combination, can be selected according to the respective application.

[0026] The cutting tool 19 can be arranged to be resiliently compliant. During the cutting process, the cutting tool 19 is moved toward the counter-holder 13, for example, by means of a mechanism, compressed air, pneumatic system, or electric motor, or the like. During the movement, the tube 12 rotating on the counter-holder 13 is cut. After the cutting tool 19 nearly abuts the counter-holder 13 or contacts this, a possible further feed can be compensated by the resiliently compliant arrangement. The life of the cutting ~~knife 33~~ tool 19 can thereby be increased. The cutting quality can be thereby increased at the same time, due to the smaller damage to the cutting ~~knife 33~~ tool 19. It can be advantageously provided that the counter-holder 13 is arranged to be insulated with respect to the base frame 14, so that the cutting ~~knife 33~~ tool 19 comes into electrical contact when it strikes, or rests on, the counter-holder 13, upon which the feed movement or the cutting movement of the cutting tool 19 is immediately stopped. This or a

similar kind of electrical monitoring likewise increases the life of the cutting ~~knife~~ ~~33~~ tool 19.

[0027] The proximity switch 22 is arranged on the flange 18, to the right of the cutting tool 19 in the embodiment example. This is arranged on the flange 18 at an acute angle to an end surface of the tube 12, so that a scan does not take place perpendicularly from above, and thus parallel to the end surface of the tube 12, but that the end surface of the tube 12 is used as the reference surface. The beginning of the tube 12 can thereby be determined exactly. The proximity switch 22 can for example [[by]] be provided as an infrared sensor or the like. Further optoelectronic switches can likewise be used.

[0028] The ejector 21 is arranged to the left of the cutting tool 19~~, as~~ of the unit 35 ~~shows~~. This ejector 21 has a movable bolt 39 which is movable in the direction toward the counter-holder 13 or ~~the~~ an ejector sleeve 41. As soon as, for example, the flange 18 has come into an ejector position 24, the ejector 21 can be driven by means of a relay or by means of a control, so that the bolt 39 engages in a groove 42 or in a correspondingly formed recess on the bolt 39. After this is positively arranged in the groove 42, the slide 17 can be guided over into the initial position 23, upon which the cut-off sleeve is ejected and is simultaneously guided away via a chute 43. Immediately before the end of the counter-holder 13, the bolt 39 is brought back into its initial position, so that the ejector sleeve 41 remains near the free end of the counter-holder 13, which is brought back into its initial position by loading a new tube 12 onto the counter-holder 13.

[0031] Alternatively, two or more slides 17 can be provided on the guide rail 16, arranged at a given distance from each other, whereby a cut optimization can take place by means of the program control to the effect that, for example with three slides with cutting tools 19 arranged on them, the cutting time of the whole tube can be reduced to a third. Furthermore, it can be alternatively provided that two or more guide rails are provided to a counter-holder, ~~so that~~ so that on each guide rail respectively one or more cutting tools 19 can follow, independently of the cutting tool or tools 19, on the further guide rail or rails. In particular, with very long tubes, such an arrangement can lead to a reduction of cycle times. The individual cutting processes can be coordinated by a common control, so that a frictionless cutting of the sleeves into the respectively required lengths can take place.

[0032] The tube 12 is held in a defined position during a cutting process by guide rollers 46 arranged to left and right of the counter-holder 13, as is shown, for example, in Fig. 2. The guide rollers 46 engage such that they hold the tube 12 down on the counter-holder 13. The counter-holder 13 is advantageously made small in comparison with the tube diameter of the tube 12, so that the latter is freely supported on the counter-holder 13. It can likewise be provided, for example with a small diameter of the tube 12, that the counter-holder corresponds approximately to the internal diameter of the tube 12. In this case of application, the guide rollers 46 have a supporting action, in particularly so that the counter-holder is supported when it receives the cutting force. The guide rollers 46 can, for example, be arranged in a ~~four~~ ten o'clock or ~~eight~~ two o'clock position. The guide rollers 46 advantageously extend almost over the whole length of the

counter-holder 13. At least one of the two guide rollers 46, or advantageously both guide rollers, are driven, in order to set the tube 12 in rotation. In Fig. 2, the drive for the guide rollers 46 by belts or chains or the like is represented, a gearwheel drive 47 being illustrated which makes it possible for both the left and the right guide rollers 46 to have the same drive speed. The guide rollers 46 are received on supporting arms 48, which are respectively mounted for pivoting around a shaft 49 by means of a power element 51 which is preferably driven by compressed air. The synchronous movement of the supporting arms 48 during the advance movement is made possible by the gearwheel pair 52 according to Fig. 3. The power element 51 can be driven either electrically or pneumatically. The use of compressed air has the advantage that on exceeding a given operating pressure a further feed movement of deflection of the supporting arms 48 is prevented, so that it can be ensured that the ~~drive~~ guide rollers 46 rest on the tube 12 with a minimum pressure and also drive it in rotation. The guide rollers 46 are advantageously hinged on the supporting arms 48 so that a fine adjustment to different diameters of the tube 12 can take place; it is advantageously provided that the drive of the guide rollers 46 can remain the same, independently of the fine adjustment. The compressed air supply and also the drive of the supporting arms 48 is shown schematically in Fig. 1 in the left-hand portion of the base frame 14.

[0035] A feed movement of the cutting tool 19 can likewise be driven by the programmable data processing equipment and control during the cutting process in dependence on the raw material and also on the wall thickness of the tube. The feed speed can likewise be adjusted in dependence on a driven cutting tool 19.

Response Under 37 CFR 1.116
Expedited Procedure
Examining Group 3724

A complete set of claims currently in this application, with status indicators, is attached hereto.